WHAT IS CLAIMED IS:

1   1.   A method for using storage slots, comprising:

2   receiving a move command to move a portable data storage medium from a source

3   address to a destination address;

4   locating an empty storage slot that has no association with the destination address;

5   moving the portable data storage medium from the source address to the located

6   empty storage slot; and

7   storing an association between the located empty storage slot and the destination

8   address.

1   2.   The method of claim 1, wherein locating locates a closest empty storage

2   slot.

1   3.   The method of claim 1, wherein storing the association further comprises:

2   updating one or more tables.

1   4.   The method of claim 1, further comprising:

2   assigning a storage element count to each one of multiple logical libraries, wherein

3   the sum of the storage element count for each one of the multiple logical libraries exceeds

4   the total number of storage slots in the library.

1   5.   The method of claim 4, wherein the storage element count for one or more

2   of the multiple logical libraries is equal to a total number of storage slots in a library.

1   6.   The method of claim 4, further comprising:

2   allowing one or more of the multiple logical libraries to be associated with any

3   storage slot in a library.

1   7.   The method of claim 1, further comprising:

2   assigning a storage slot count greater than a total number of storage slots in a

3   library to one or more logical libraries;

4   adding new storage slots to the library; and

5   allowing one or more of the logical libraries to be associated with the newly added

6   storage slots.

1   8.   The method of claim 7, wherein the storage slot count equals a maximum

2   number of storage slots that may subsequently be in the library.

1   9.   The method of claim 7, further comprising:

2   adding a new frame to the library that includes the new storage slots.

1   10.   The method of claim 7, wherein the new storage slots comprise storage

2   slots whose status is changed from a status of not being eligible to be associated with one

3   or more of the logical libraries to being eligible to be associated with one or more of the

4   logical libraries.

1   11.   An article of manufacture for using storage slots, wherein the article of

2   manufacture is capable of causing operations to be performed, the operations comprising:

3   receiving a move command to move a portable data storage medium from a source

4   address to a destination address;

5   locating an empty storage slot that has no association with the destination address;

6   moving the portable data storage medium from the source address to the located

7   empty storage slot; and

8   storing an association between the located empty storage slot and the destination

9   address.

1   12.   The article of manufacture of claim 11, wherein operations for locating

2   further comprise operations for locating a closest empty storage slot.

1   13.   The article of manufacture of claim 11, wherein the operations for storing

2   the association further comprise:

3   updating one or more tables.

1   14.   The article of manufacture of claim 11, wherein the operations further

2   comprise:

3   assigning a storage element count to each one of multiple logical libraries, wherein

4   the sum of the storage element count for each one of the multiple logical libraries exceeds

5   the total number of storage slots in the library.

1   15.   The article of manufacture of claim 14, wherein the storage element count

2   for one or more of the multiple logical libraries is equal to a total number of storage slots

3   in a library.

1   16.   The article of manufacture of claim 14, wherein the operations further

2   comprise:

3   allowing one or more of the multiple logical libraries to be associated with any

4   storage slot in a library.

1   17.   The article of manufacture of claim 11, wherein the operations further

2   comprise:

3   assigning a storage slot count greater than a total number of storage slots in a

4   library to one or more logical libraries;

5   adding new storage slots to the library; and

6   allowing one or more of the logical libraries to be associated with the newly added

7 storage slots.

1   18.   The article of manufacture of claim 17, wherein the storage slot count

2 equals a maximum number of storage slots that may subsequently be in the library.

1   19.   The article of manufacture of claim 17, wherein the operations further

2 comprise:

3   adding a new frame to the library that includes the new storage slots.

1   20.   The article of manufacture of claim 17, wherein the new storage slots

2 comprise storage slots whose status is changed from a status of not being eligible to be

3 associated with one or more of the logical libraries to being eligible to be associated with

4 one or more of the logical libraries.

1   21.   A library, comprising:

2   means for receiving a move command to move a portable data storage medium

3 from a source address to a destination address;

4   means for locating an empty storage slot that has no association with the

5 destination address;

6   means for moving the portable data storage medium from the source address to the

7 located empty storage slot; and

8   means for storing an association between the located empty storage slot and the

9 destination address.

1   22.   The library of claim 21, wherein means for locating comprises means for

2 locating a closest empty storage slot.

1   23.   The library of claim 21, wherein storing the association further comprises:

2   means for updating one or more tables.

1   24.   The library of claim 21, further comprising:

2   means for assigning a storage element count to each one of multiple logical

3   libraries, wherein the sum of the storage element count for each one of the multiple logical

4   libraries exceeds the total number of storage slots in the library.

1   25.   The library of claim 24, wherein the storage element count for one or more

2   of the multiple logical libraries is equal to a total number of storage slots in a library.

1   26.   The library of claim 24, further comprising:

2   means for allowing one or more of the multiple logical libraries to be associated

3   with any storage slot in a library.

1   27.   The library of claim 21, further comprising:

2   means for assigning a storage slot count greater than a total number of storage

3   slots in a library to one or more logical libraries;

4   means for adding new storage slots to the library; and

5   means for allowing one or more of the logical libraries to be associated with the

6   newly added storage slots.

1   28.   The library of claim 27, wherein the storage slot count equals a maximum

2   number of storage slots that may subsequently be in the library.

1   29.   The library of claim 27, further comprising:

2   means for adding a new frame to the library that includes the new storage slots.

1   30.   The library of claim 27, wherein the new storage slots comprise storage

2   slots whose status is changed from a status of not being eligible to be associated with one

3   or more of the logical libraries to being eligible to be associated with one or more of the

4   logical libraries.